







# Drought and Heat Wave of 2012

## Midwest and Great Plains

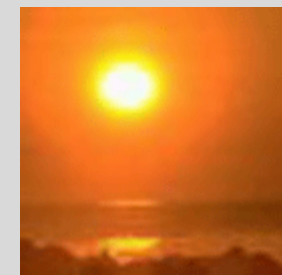


-  **Worst drought since 1956 with ~60% of contiguous U.S. under drought, worst agricultural drought since 1988**
-  **38% of corn crop in poor-very poor condition. This was the largest corn crop acreage planted since 1937**
-  **Soybean crop at 34% good-excellent category – down from 56% at start of season**
-  **1297 counties in 29 states [designated natural disaster areas](#)**

Source:

USDA <http://www.usda.gov>

Contact: John Eise [john.eise@noaa.gov](mailto:john.eise@noaa.gov)

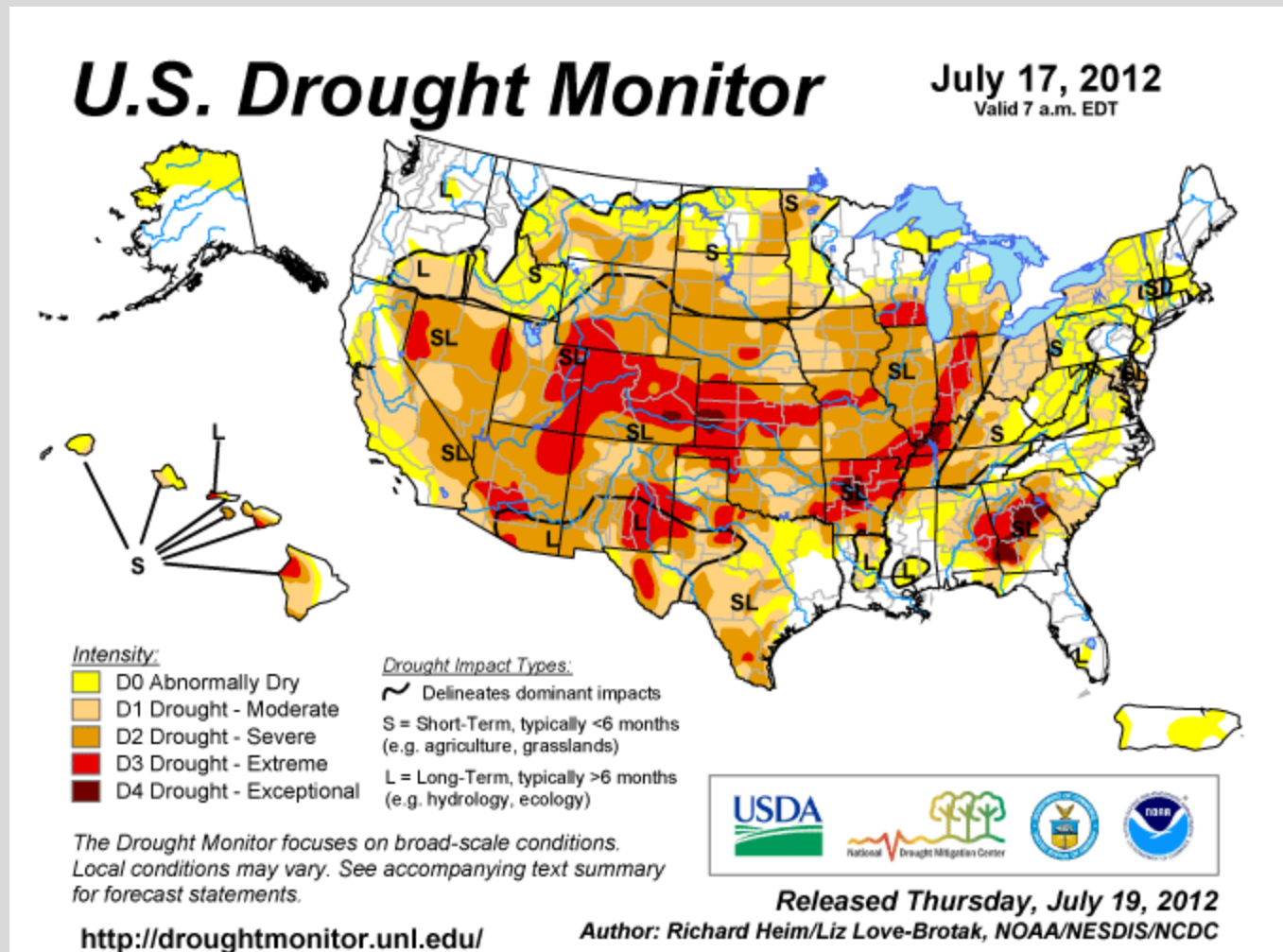




# Drought Latest Conditions



- Exceptional to Severe Drought across parts of Wyoming, Colorado, Kansas, Missouri, Illinois and Indiana
- Areas outside of dry conditions are parts of North Dakota, Minnesota, Wisconsin and Michigan
- Updated Weekly on Thursday

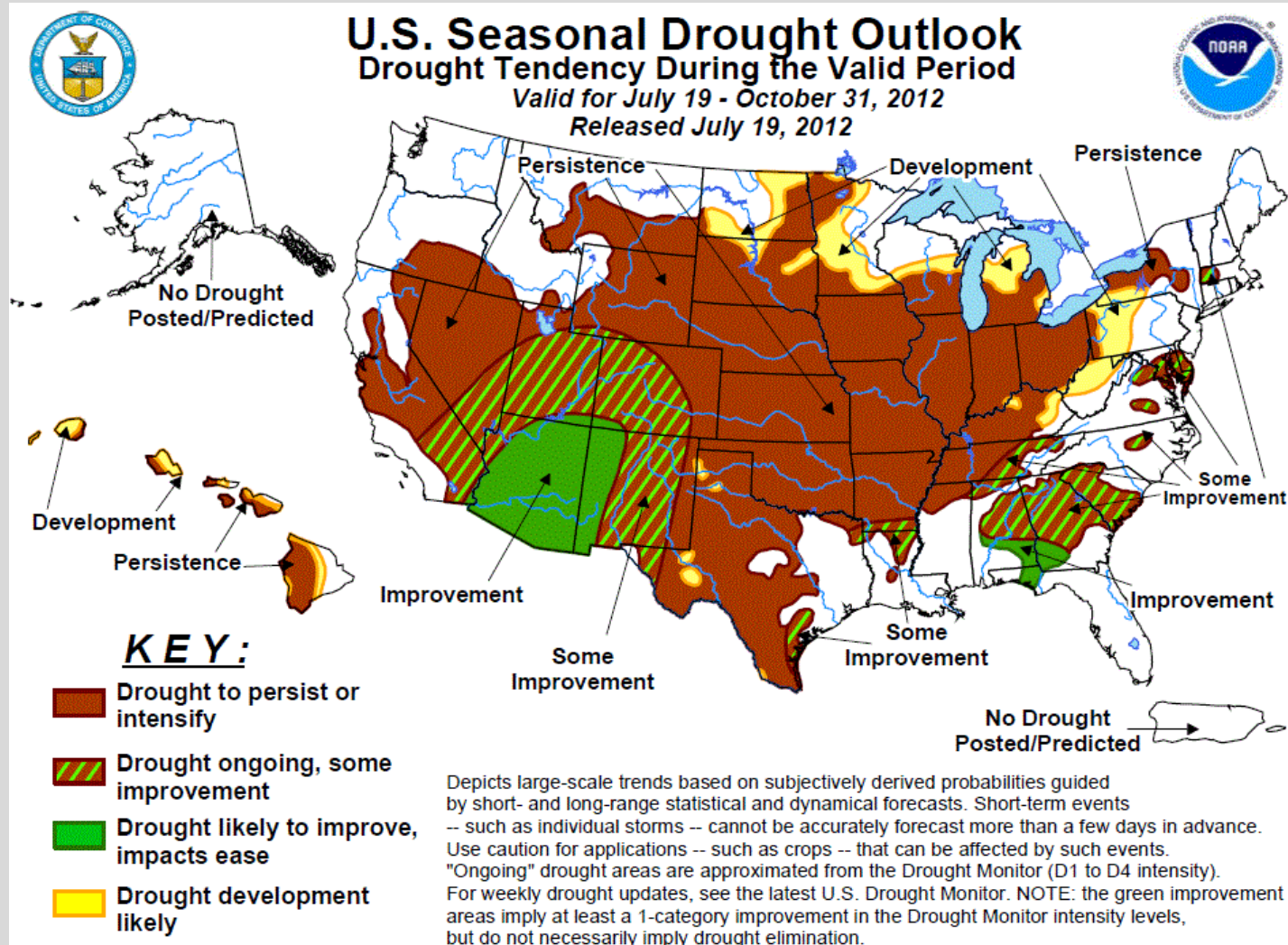




# Drought Outlook thru October



- Drought to persist or intensify across Central Region
- Only areas to remain outside of drought are parts of west North Dakota, east Minnesota, north Wisconsin, north Michigan, and east Kentucky
- Next update on July 26<sup>th</sup>

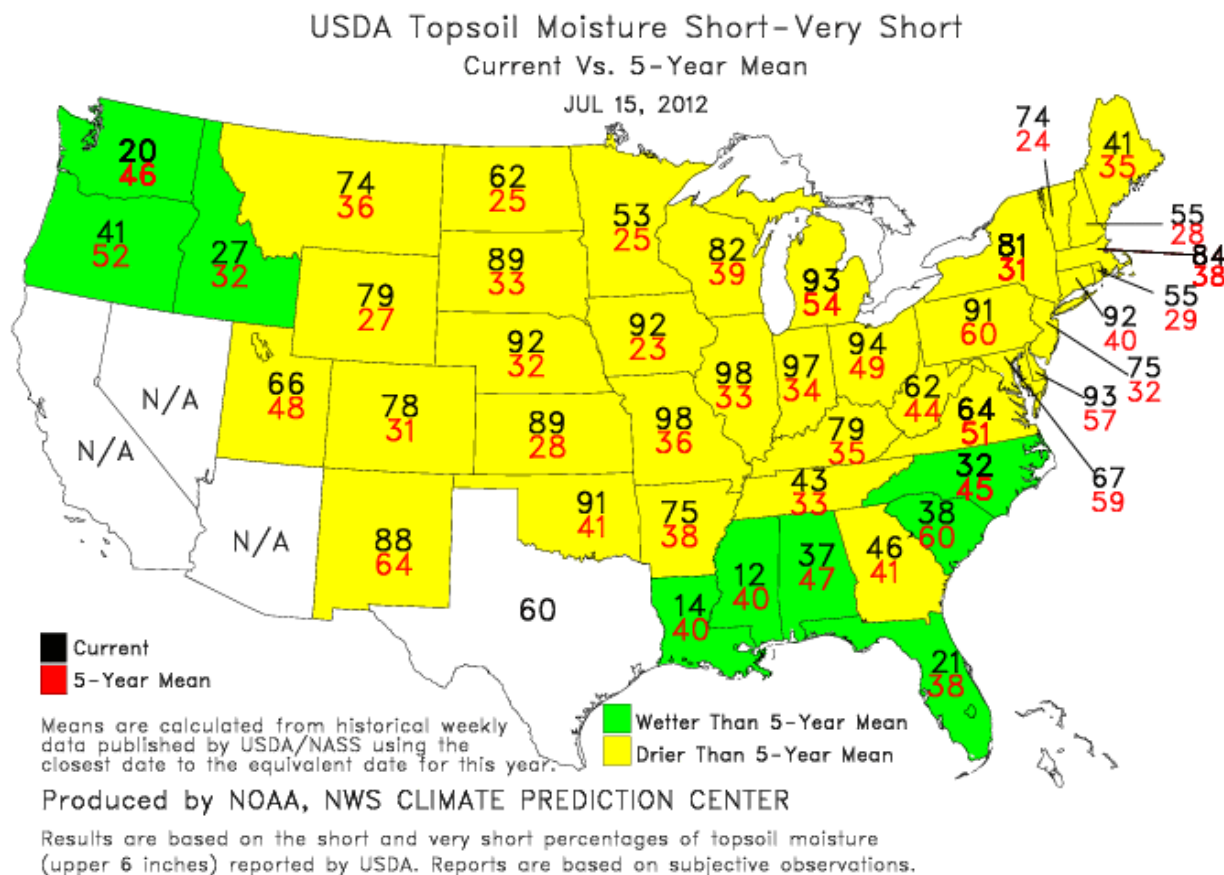




# 6-inch Topsoil Moisture Short-Very Short vs. 5-yr Mean



- < ~10% topsoil moisture left in South Dakota, Nebraska, Iowa, Kansas, Missouri, Illinois, Indiana and Michigan
- All of Central Region is less than half of normal topsoil moisture.



Source:  
National Climatic Data Center  
<http://www.ncdc.noaa.gov/sotc/>





# Corn and Drought

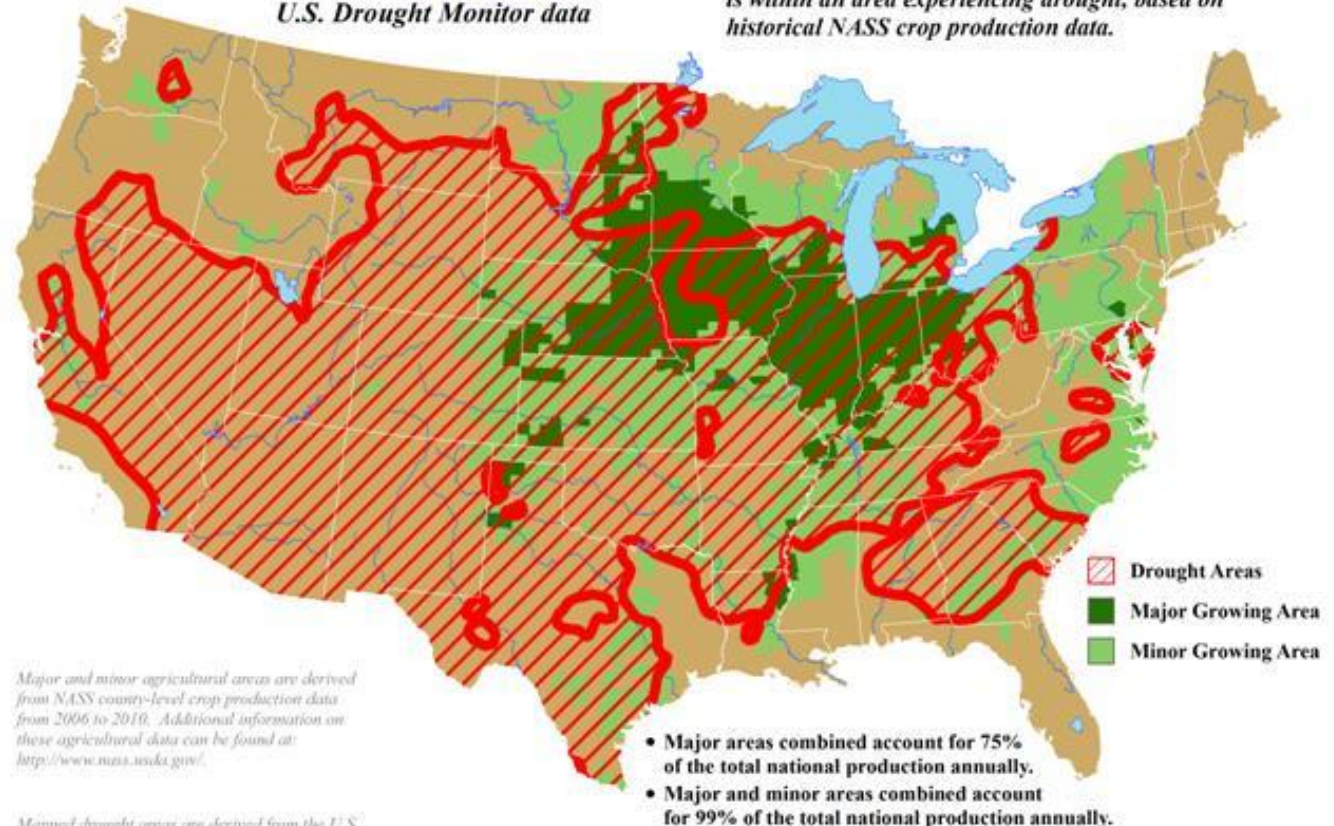


- 78% of corn grown in the U.S. is experiencing drought
- Almost all corn is grown within Central Region

## U.S. Corn Areas Experiencing Drought

Reflects July 10, 2012  
U.S. Drought Monitor data

Approximately 78% of the corn grown in the U.S. is within an area experiencing drought, based on historical NASS crop production data.



Source:  
U.S. Dept. of Agriculture  
<http://blogs.usda.gov/>

USDA Agricultural Weather Assessments  
World Agricultural Outlook Board

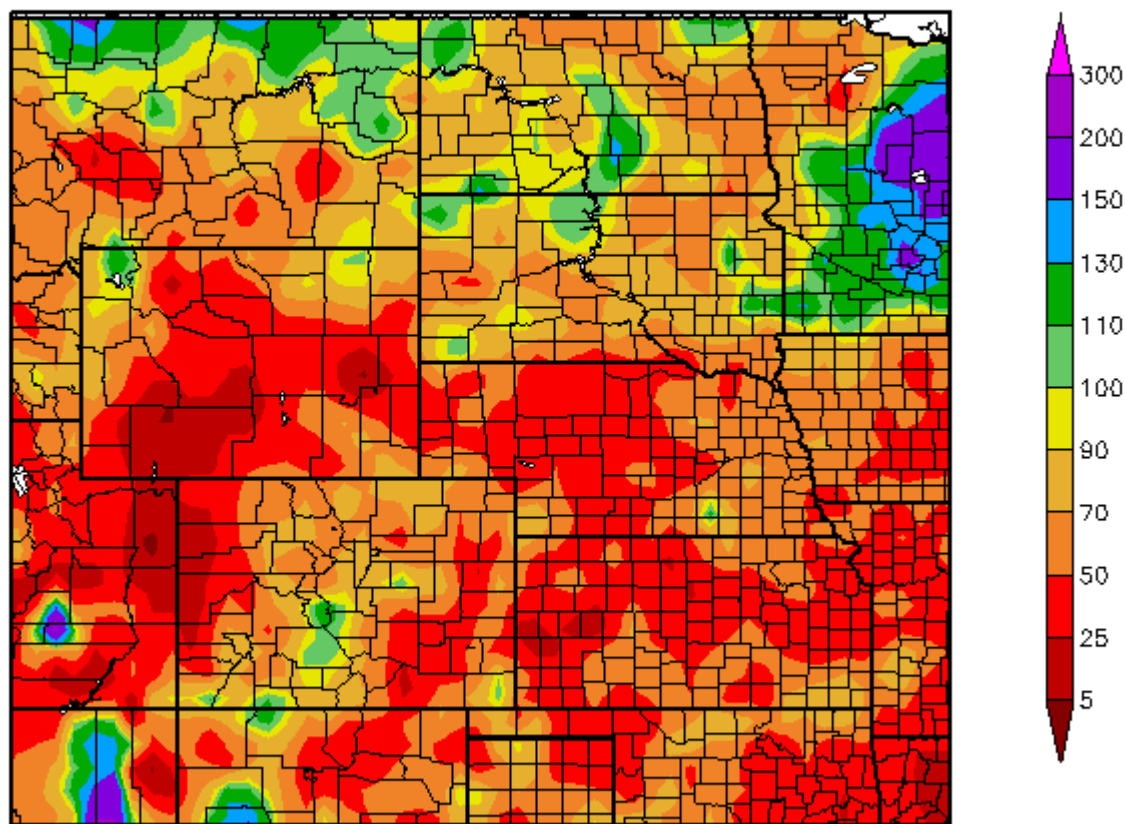


# Precipitation – Change from Normal Last Three Months (%)



Percent of Normal Precipitation (%)

4/21/2012 – 7/19/2012



Generated 7/20/2012 at HPRCC using provisional data.

Regional Climate Centers

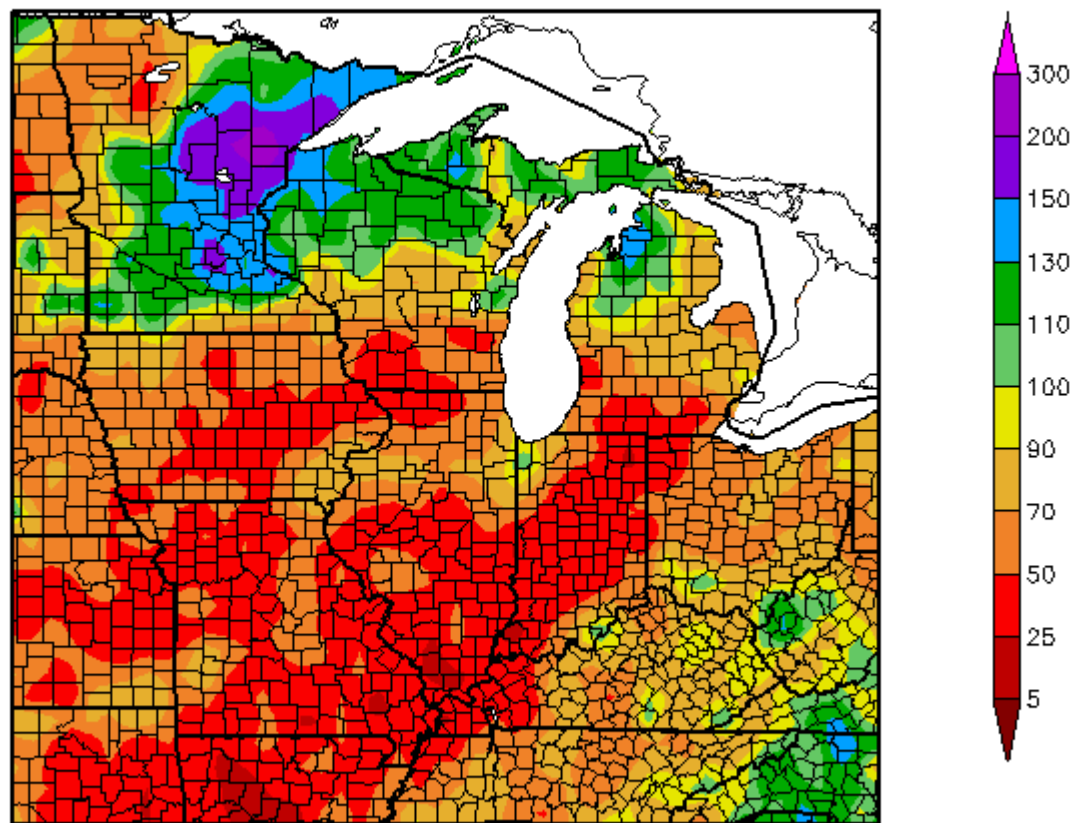
Source:  
High Plains Regional Climate Center  
<http://www.hprcc.unl.edu/>



# Precipitation – Change from Normal Last Three Months (%)



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Source:

High Plains Regional Climate Center

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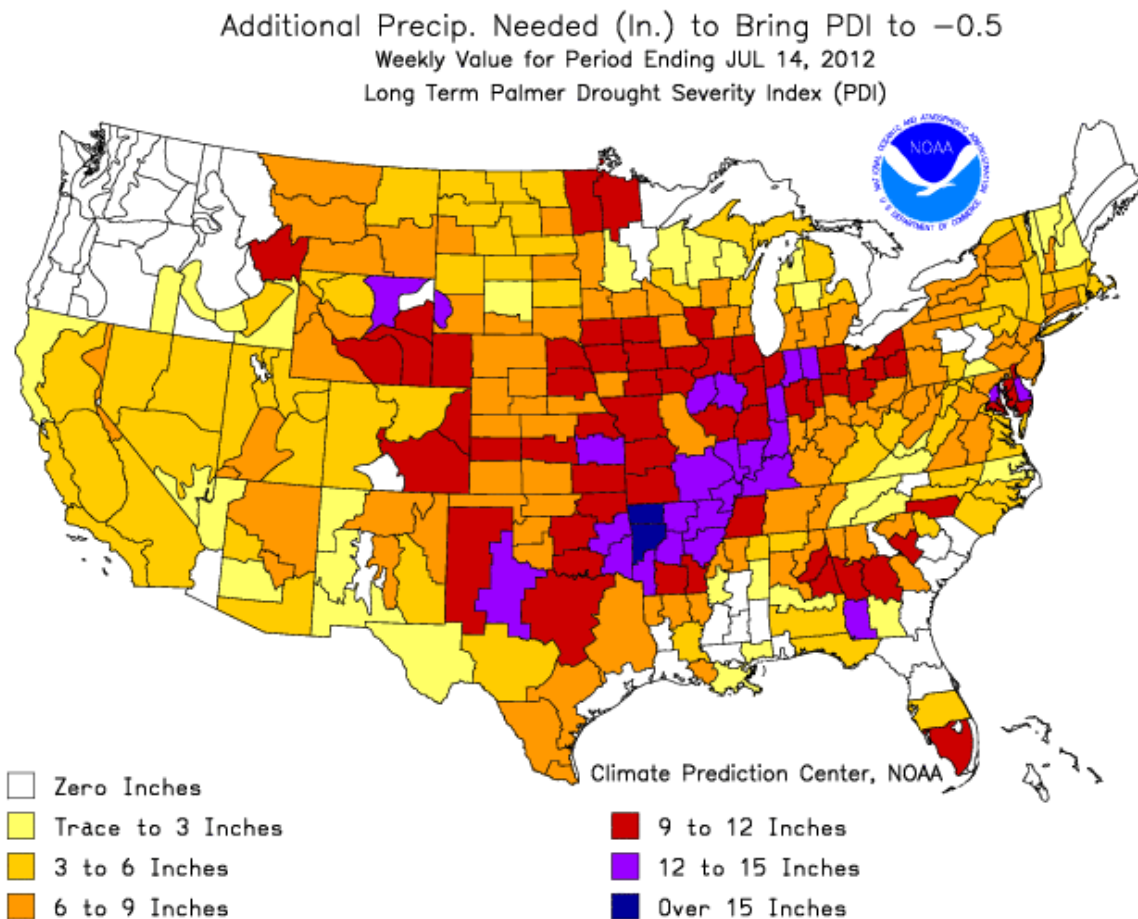
# Drought Breaker

## How Much Rainfall Needed?



- 9-15 inches of rain needed to end drought across many areas of Central Region
- Rest of Central Region would need 3-9 inches of rain
- Updated weekly

Source:  
NWS Climate Prediction Center  
<http://www.cpc.ncep.noaa.gov/>



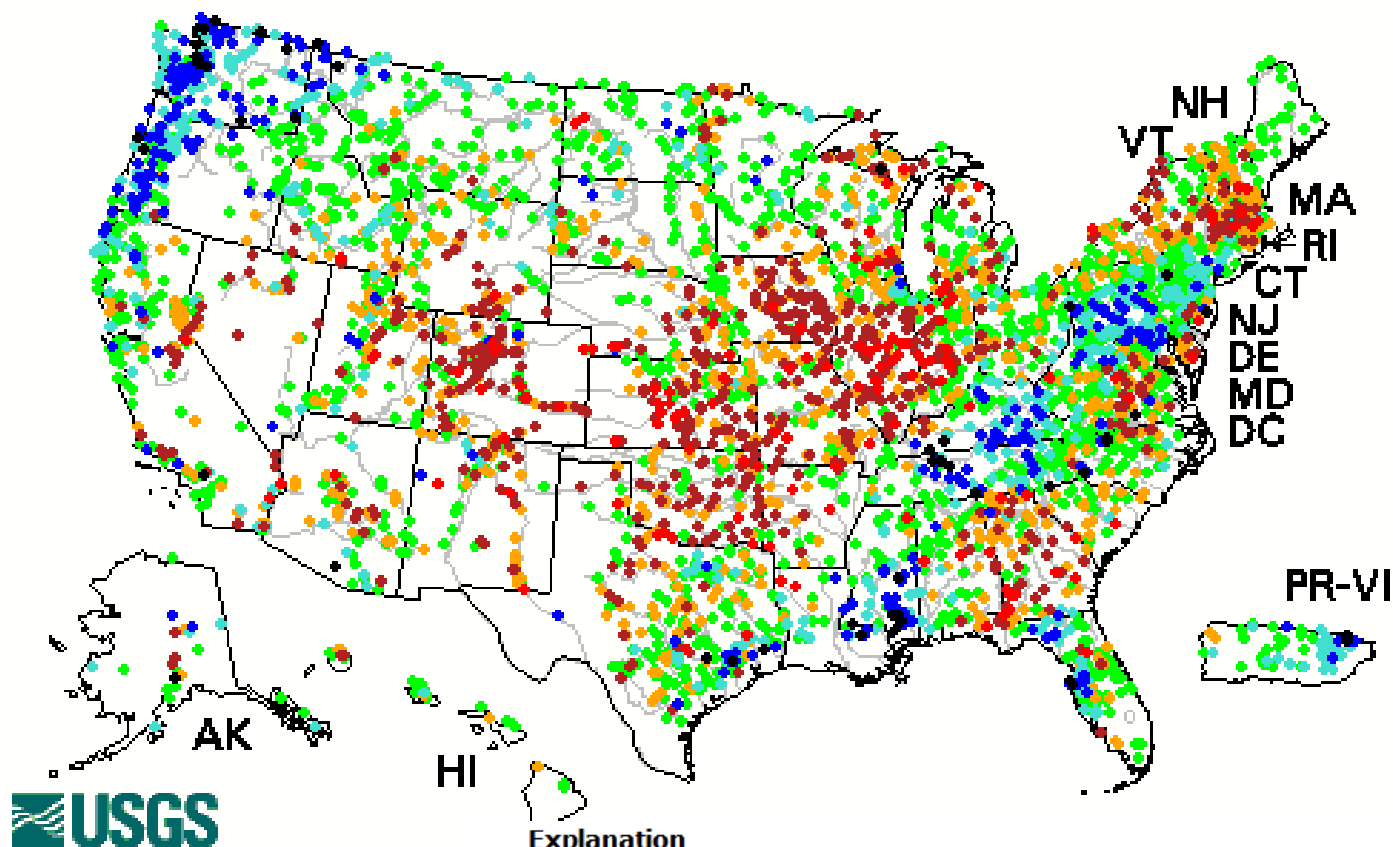




# Stream Flow Conditions



Saturday, July 21, 2012 02:30ET



## Explanation

- High
- > 90th percentile
- 76th - 90th percentile
- 25th - 75th percentile
- 10th - 24th percentile
- < 10th percentile
- Low
- Not ranked

The colored dots on this map depict streamflow conditions as a percentile, which is computed from the period of record for the current day of the year. Only stations with at least 30 years of record are used. The **gray circles** indicate other stations that were not ranked in percentiles either because they have fewer than 30 years of record or because they report parameters other than streamflow. Some stations, for example, measure stage only.

- Low flow conditions developing across Central Region
- Worst hit states are Illinois, Indiana, Iowa, Missouri, Kansas, Colorado, Wyoming, Nebraska, Wisconsin and Michigan

Source:  
U.S. Geological Survey  
<http://waterdata.usgs.gov/usa/nwis/rt/>



# Drought Links



- National Drought Mitigation Center <http://drought.unl.edu/>
  - National Drought Monitor <http://droughtmonitor.unl.edu/>
- National Weather Service Climate Prediction Center <http://www.cpc.noaa.gov>
  - Drought Outlook  
[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/season\\_drought.gif](http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.gif)
- U.S. Department of Agriculture <http://www.usda.gov/>
  - Weekly Crop Report  
<http://www.usda.gov/oce/weather/pubs/Weekly/Wwcb/wwcb.pdf>
- U. S. Drought Portal <http://www.drought.gov/>



# Outlooks



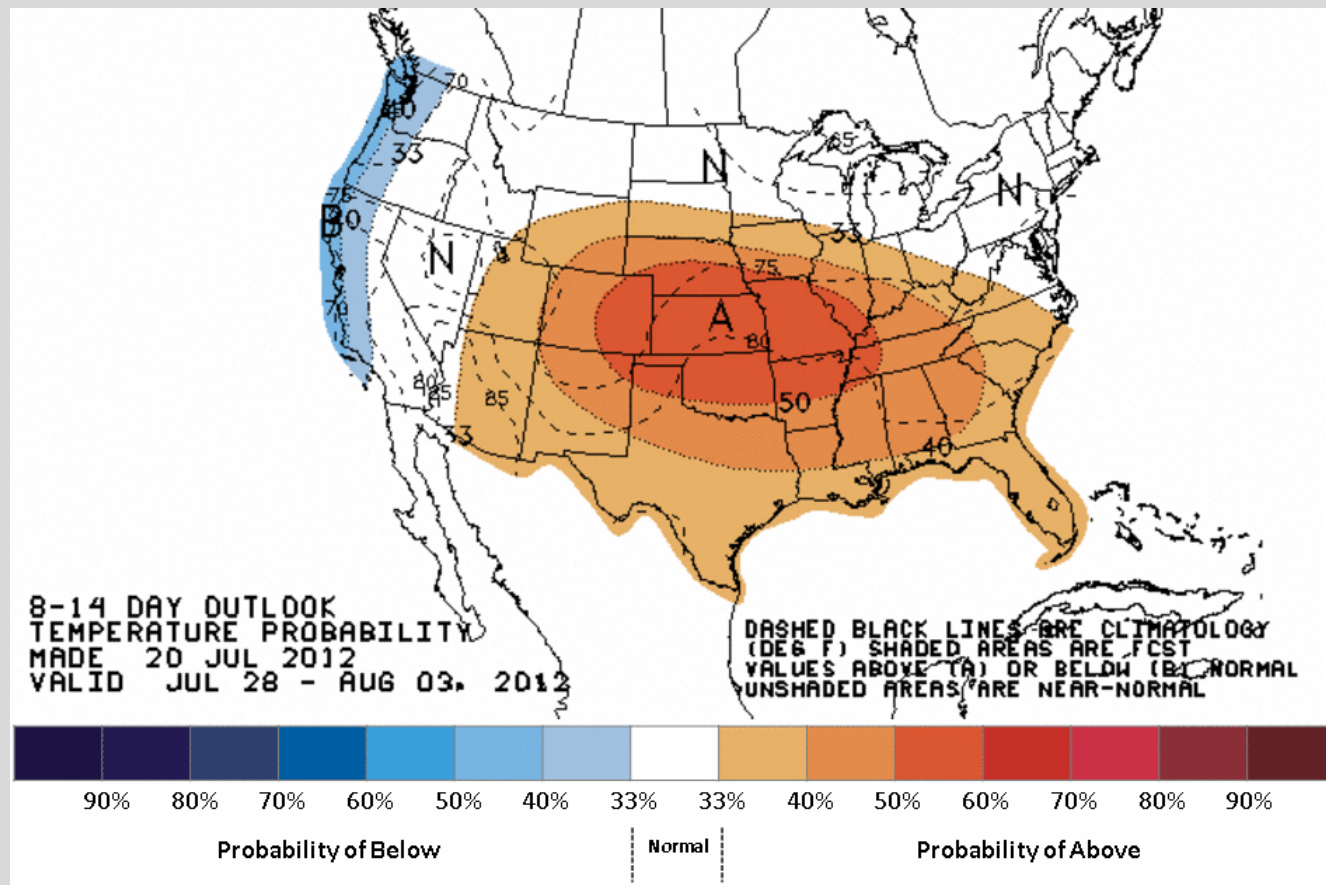


# 8-14 Day Outlook Temperature



- Warmer than normal temperatures across Central Region through the end of July

Source:  
NWS Climate Prediction Center  
<http://www.cpc.ncep.noaa.gov/>



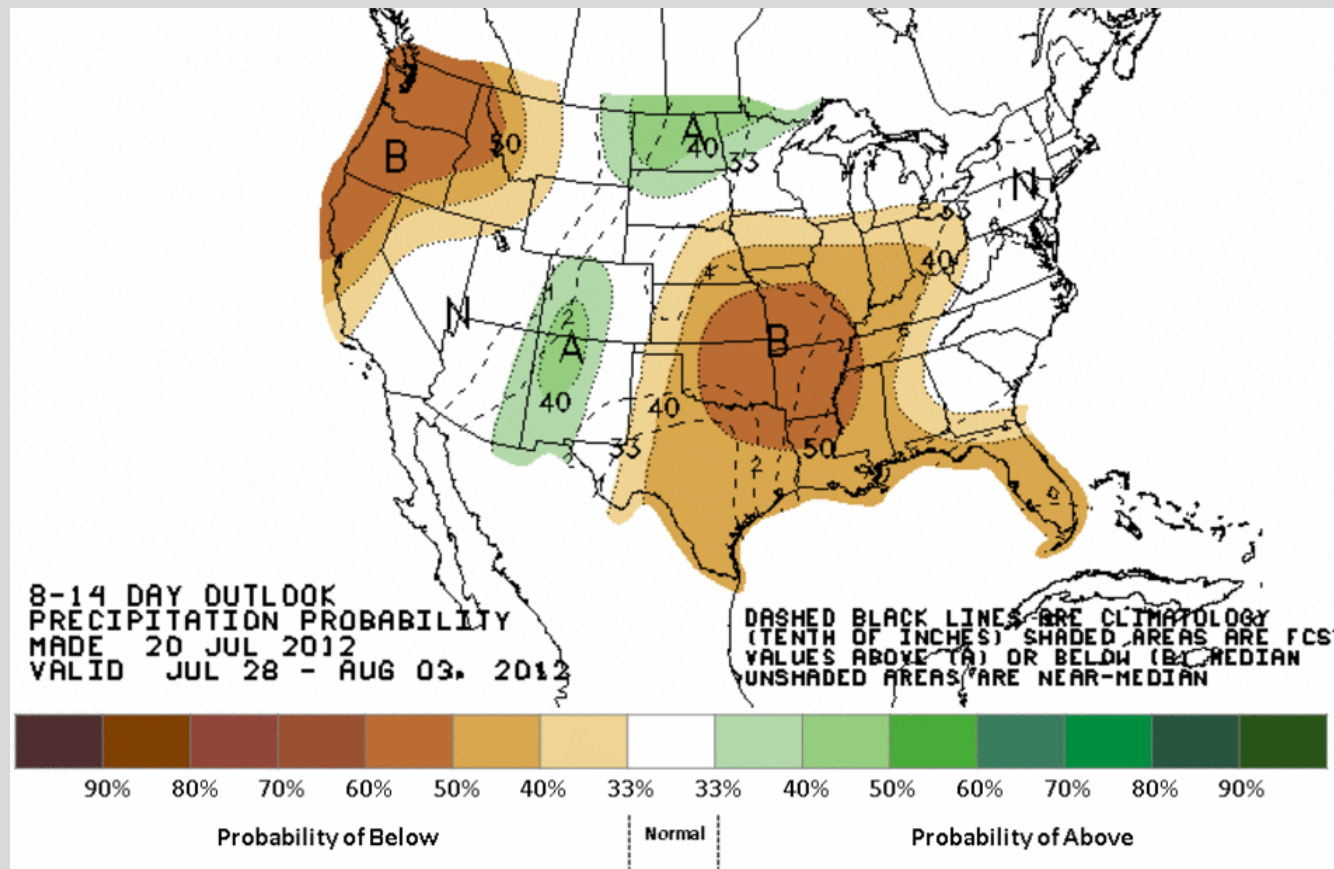




# 8-14 Day Outlook Precipitation



- Below normal precipitation for Central Region except for the West and North
- Summer monsoon season underway with improving moisture across Colorado
- Typical summer storm track will keep higher precipitation across the north



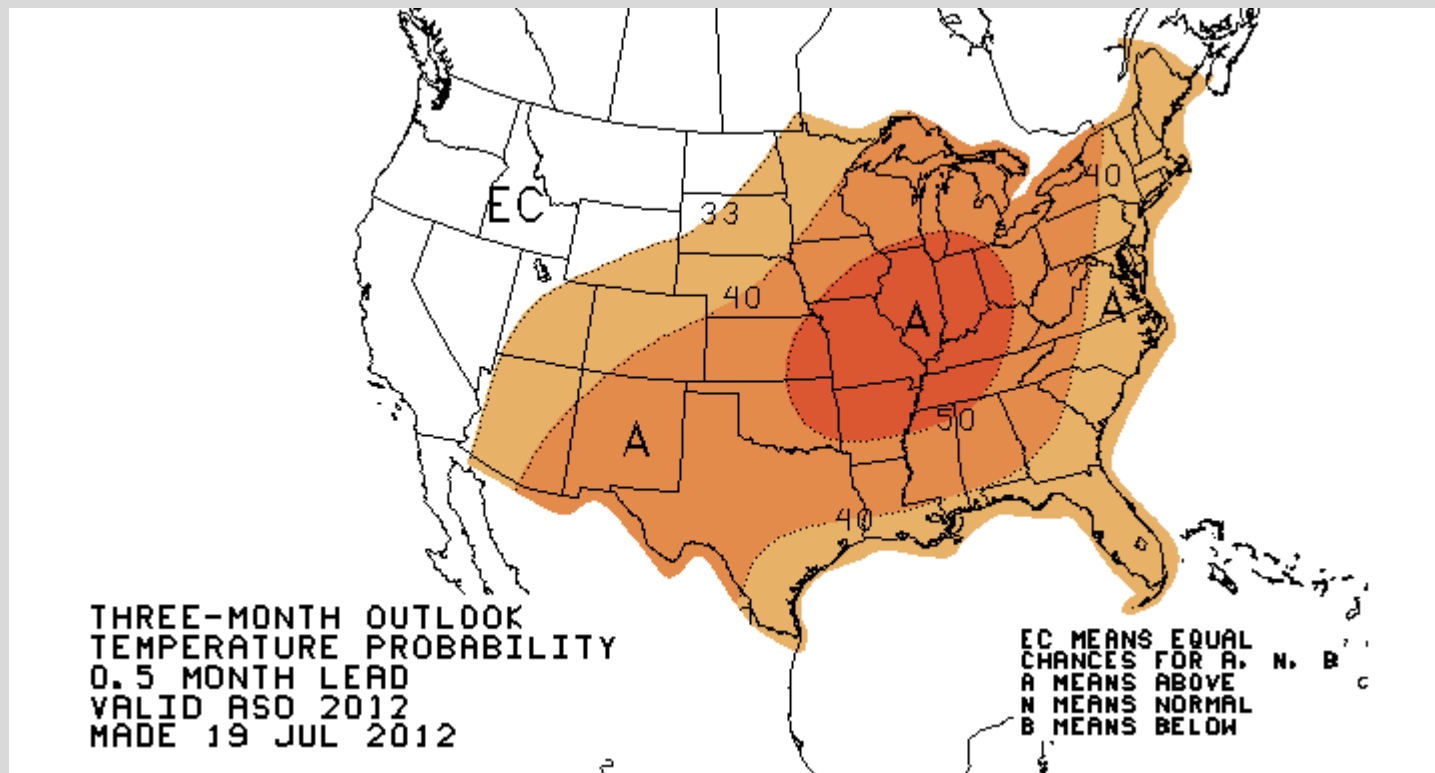


# 3-Month Outlook Temperature



- Probabilities lean towards warmer than normal temperatures across Central Region through September

Source:  
NWS Climate Prediction Center  
<http://www.cpc.ncep.noaa.gov/>



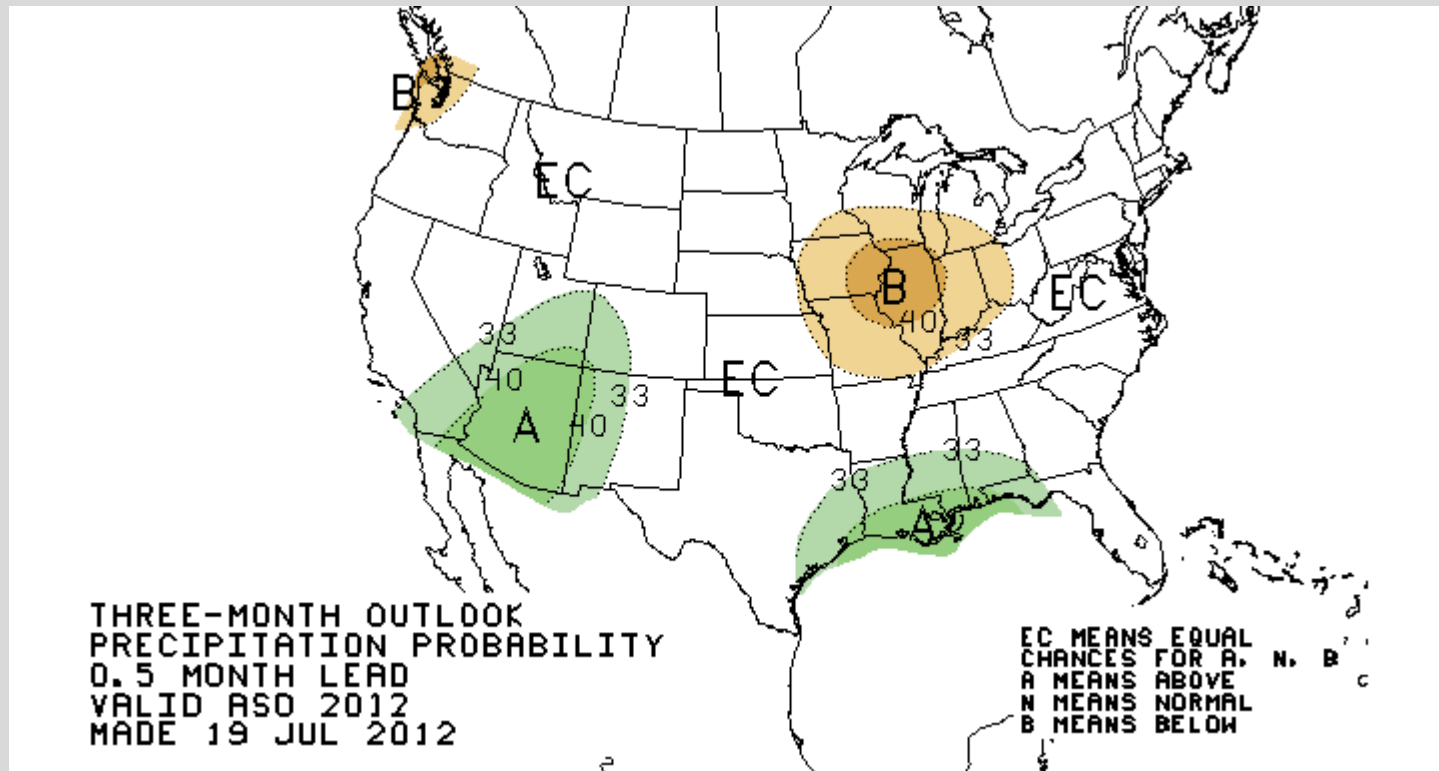


# 3-Month Outlook Precipitation



- Equal chances of above, near, or below normal precipitation through September.

Source:  
NWS Climate Prediction Center  
<http://www.cpc.ncep.noaa.gov/>





# Record Heat Climate Statistics







# July 2012 Records Nationwide



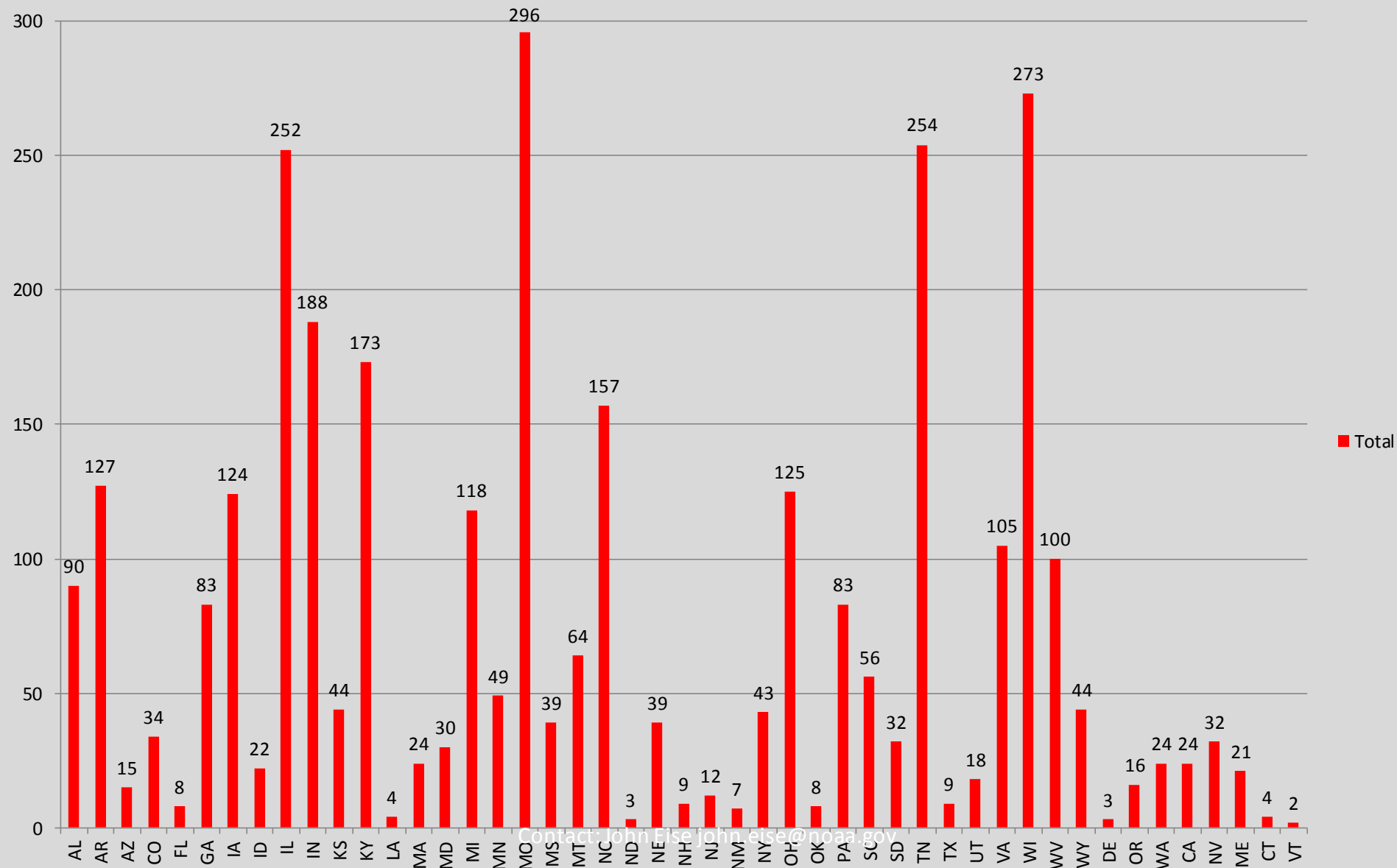
Daily Records		<b>3287</b>
100+ Deg Records		<b>1950</b>

All Time Records		<b>159</b>
100+ Deg Records		<b>149</b>

Source:  
National Climatic Data Center  
<http://www.ncdc.noaa.gov/extremes/records/>

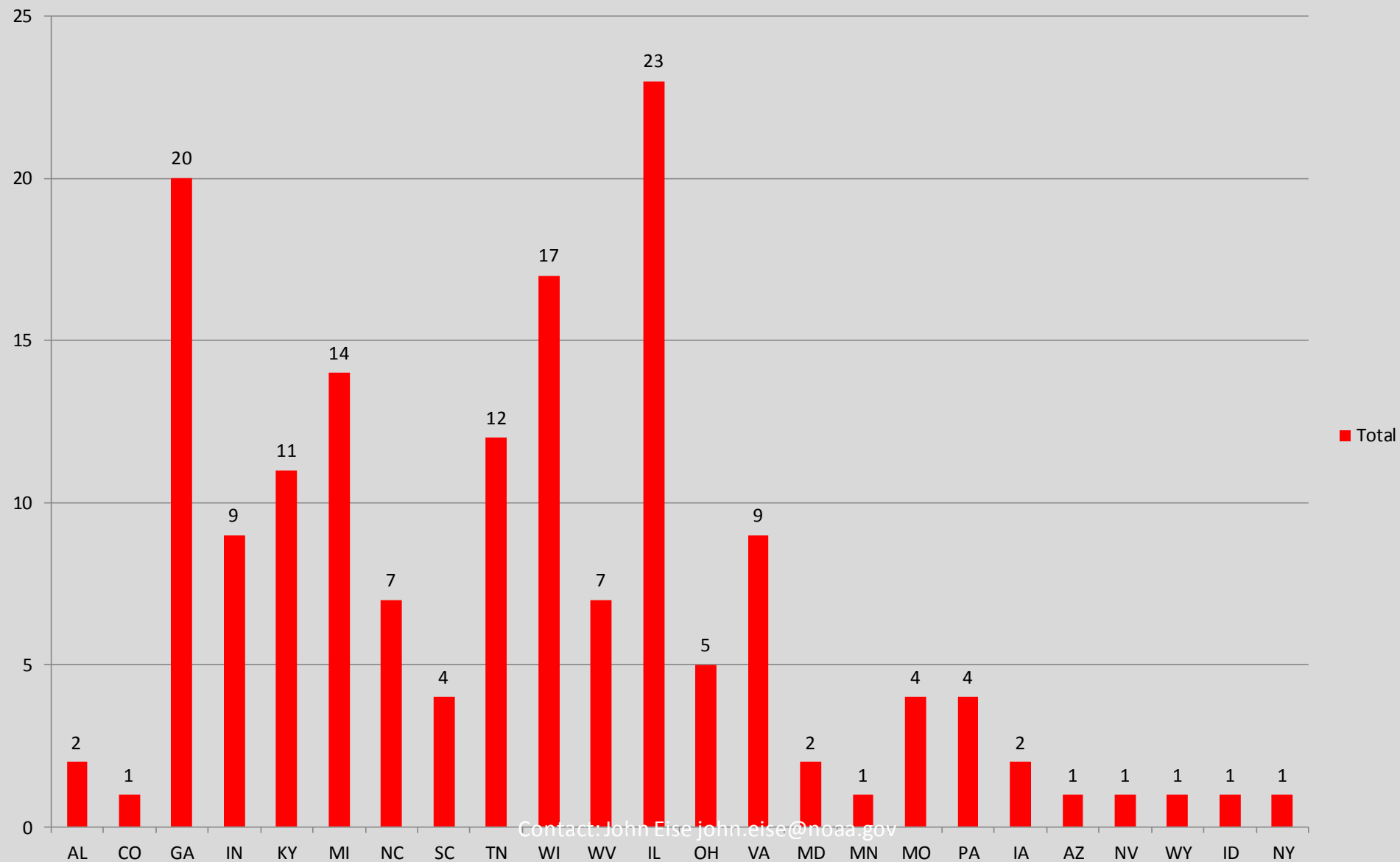


# Record Daily High Temperatures Nationwide - July 2012





# All Time Record High Temperatures Nationwide - July 2012





# June 2012 Summary Nationwide



Records Set in June 2012





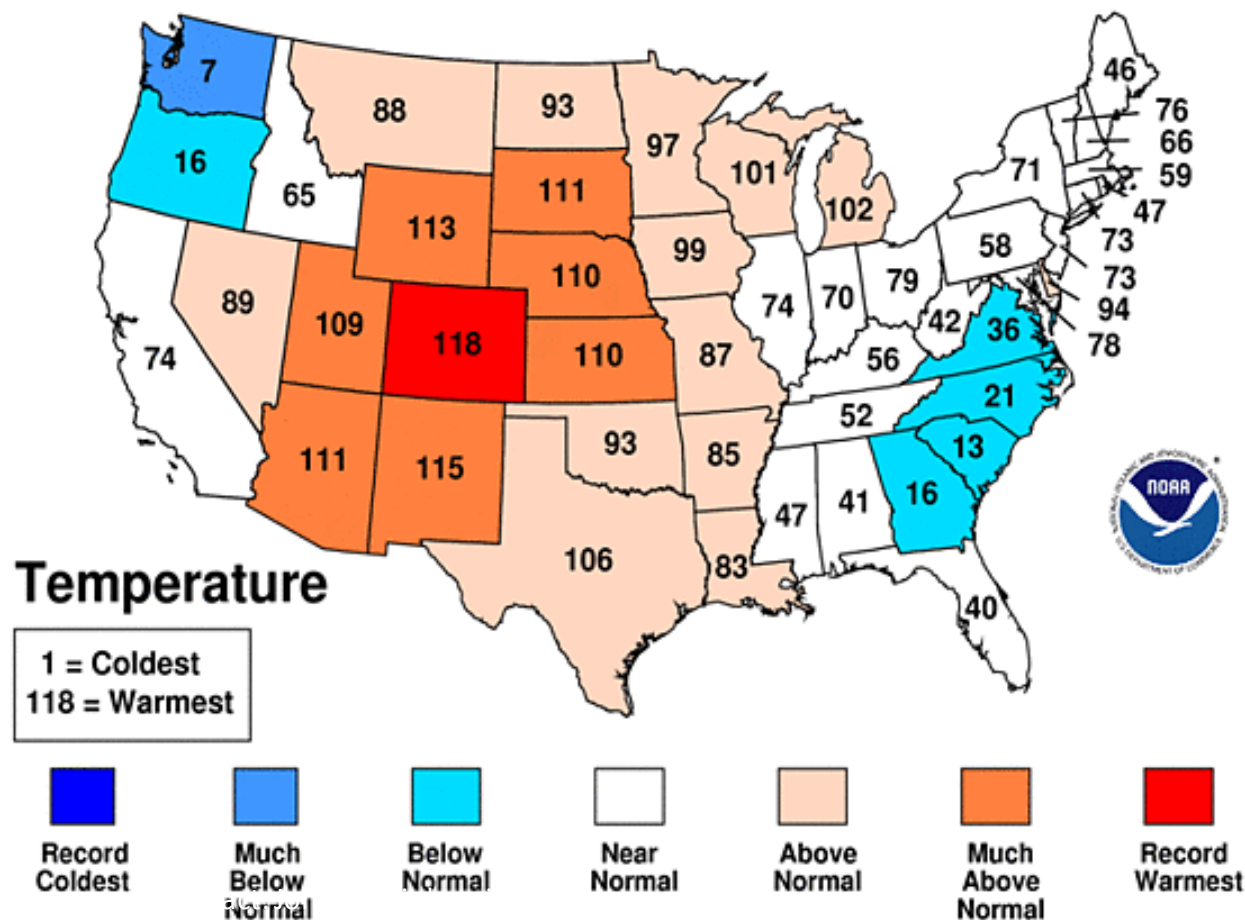
# Historical Temperature Ranking By State for 118 Years – June 2012



- Hottest Month on Record in Colorado
- Top 10% for Wyoming, South Dakota, Nebraska and Kansas

## June 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA





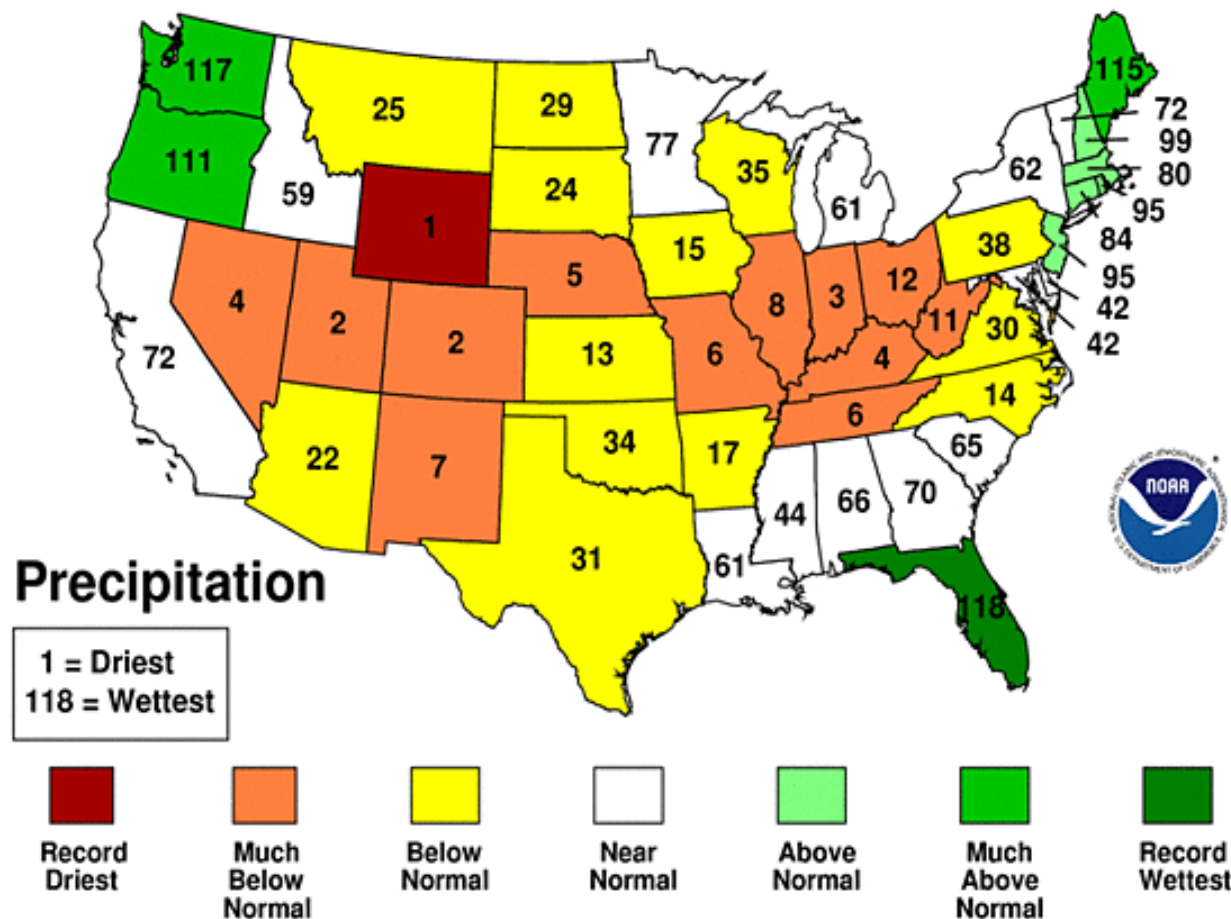
# Historical Precipitation Ranking By State for 118 Years – June 2012



- All Time Record Dry June in Wyoming
- 2<sup>nd</sup> Driest June in Colorado
- Top 1% Driest June for Nebraska, Missouri, Illinois, Indiana and Kentucky

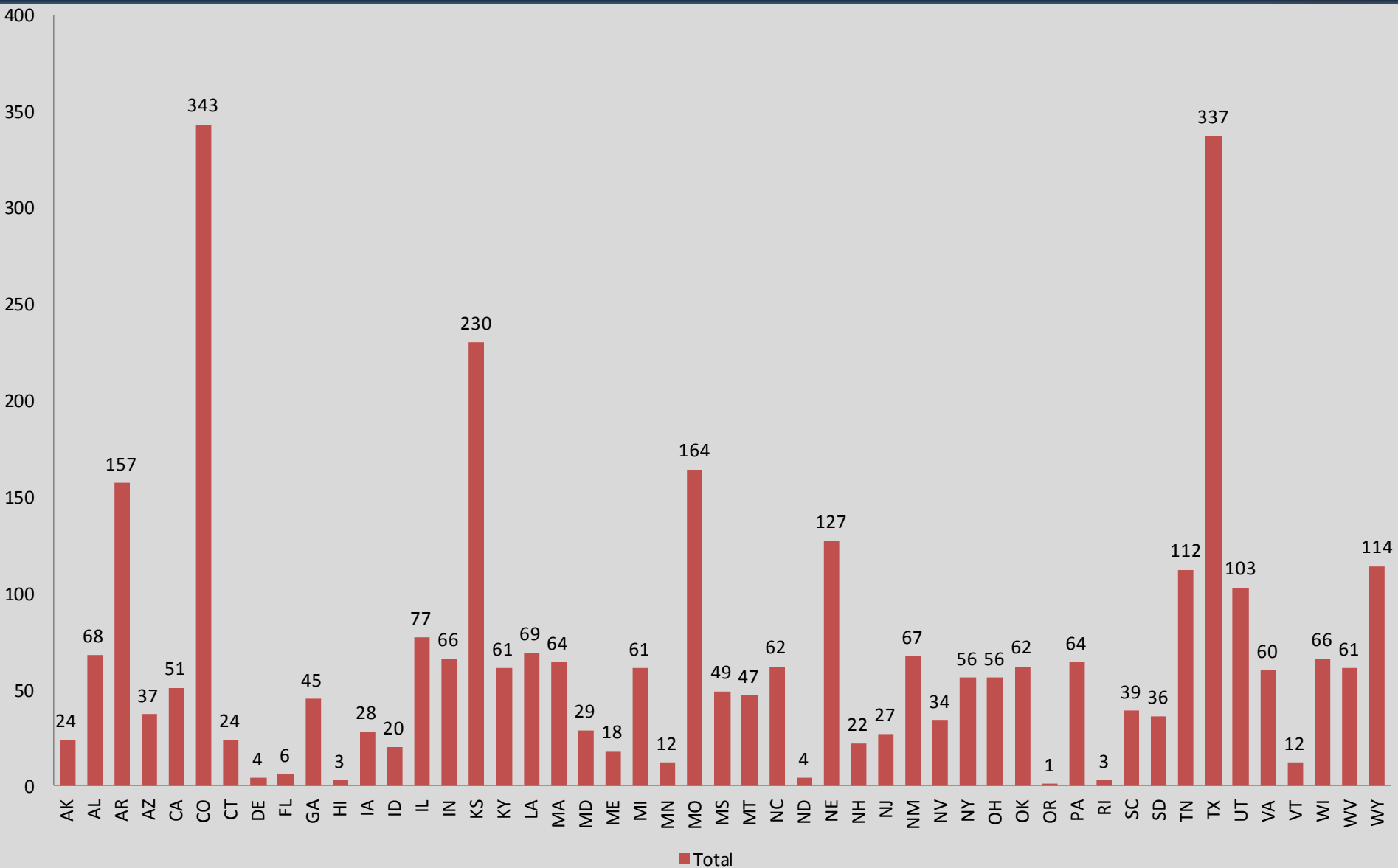
## June 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA





# Record Daily High Temperatures Nationwide - June 2012





# All Time Daily High Temperatures Nationwide - June 2012



Update: July 5, 2012

